

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A radio communication receiver comprising:

analog signal generating units in number P (where P is a natural number more than one) each of which receives a signal and generates a base band analog signal from the received signal;

A/D converters in number P each of which converts the analog signal of the corresponding analog signal generating unit into digital signals; and

a demodulator which demodulates the digital signal output by the corresponding A/D converter based on a desired method, the demodulator ~~having,~~ comprising:

soft-decision output equalizers in number P each of which makes a soft decision on the digital signal output by the corresponding A/D converter;

a combining unit which ~~combines~~ sums up the results of the soft decisions by the soft-decision output equalizers and outputs the result as a soft-decision value; and

an error correcting unit which performs error correction processing with respect to the soft-decision value output by the combining unit.

Claim 2 (Currently Amended): A radio communication receiver comprising:

analog signal generating units in number P (where P is a natural number) each of which receives a signal and generates a base band analog signal from the received signal;

A/D converters in number P each of which converts the analog signal of the corresponding analog signal generating unit into digital signals; and

a demodulator which demodulates the digital signal output by the corresponding A/D converter based on a desired method, said demodulator ~~having,~~ comprising:

level-adjusting units in number P each of which adjusts a power level of the digital signal output by the corresponding A/D converter;

soft-decision output equalizers in number P each of which makes a soft decision with respect to the signal output by the corresponding level-adjusting unit;

a combining unit which returns a result of the soft decision to a status before the level adjustment, combines the results of the soft decisions by the soft-decision output equalizers at the original power levels and outputs the result as a soft-decision value; and

an error correcting unit which performs error correction processing with respect to the soft-decision value output by the combining unit.

Claim 3 (Currently Amended): A radio communication receiver comprising:

analog signal generating units in number P (where P is a natural number) each of which receives a signal and generates a base band analog signal from the received signal;

A/D converters in number P each of which converts the analog signal of the corresponding analog signal generating unit into digital signals; and

a demodulator which demodulates the digital signal output by the corresponding A/D converter based on a desired method, said demodulator ~~having~~, comprising:

soft-decision output equalizers in number P each of which makes a soft decision on the digital signal output by the corresponding A/D converter;

noise-power estimating units in number P each of which estimates noise power of the digital signal output by the corresponding A/D converter;

a combining unit which divides results of the soft decisions by corresponding noise power respectively, and combines the results of the division to output a soft-decision value; and

an error correcting unit which performs error correction processing with respect to the soft-decision value output by the combining unit.

Claim 4 (Currently Amended): A radio communication receiver comprising:
analog signal generating units in number P (where P is a natural number) each of which receives a signal and generates a base band analog signal from the received signal;
A/D converters in number P each of which converts the analog signal of the corresponding analog signal generating unit into digital signals; and
a demodulator which demodulates the digital signal output by the corresponding A/D converter based on a desired method, said demodulator ~~having,~~ comprising:
soft-decision output equalizers in number P each of which makes a soft decision on the digital signal output by the corresponding A/D converter based on common reliability information that is fed back after error correction;
a combining unit which combines the results of the soft decisions by the soft-decision output equalizers and outputs the result as a soft-decision value; and
an error correcting unit which performs error correction processing with respect to the soft-decision value output by the combining unit, generates reliability information of decoded bits, and feeds back the reliability information to the soft-decision output equalizers.